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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,793	03/12/2007	Markus Kley	WW053USU	8546

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EXAMINER	
TRIEU, THAI BA	

ART UNIT	PAPER NUMBER
3748	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,793	KLEY, MARKUS	
	Examiner	Art Unit	
	THAI BA TRIEU	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-19* is/are allowed.

6)☒ Claim(s) *11-16,20 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 March 2009* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the Amendment filed on March 23, 2009. Applicant's cooperation in correcting the informalities in the drawing and specification is appreciated. Applicant's cooperation in amending the claims to overcome the claim objections relating to informalities as well as indefinite claim language is also appreciated.

Claims 1-10 were cancelled; and

Claims 11, 16, 18, 20 and 21 were amended.

Applicant's arguments, see pages 14-17, filed on March 23, 2009, with respect to the rejections of claims 11-21 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is set forth below.

Oath/Declaration

The oath or declaration submitted on April 06, 2008 has been accepted.

Drawings

The Amendments to the Drawings submitted on March 23, 2009 has been approved for entry.

Specification

A. IN THE SPECIFICATION:

The Amendments to the Specification submitted on March 23, 2009 has been approved for entry.

B. IN THE ABSTRACT:

The Abstract, submitted on March 23, 2009 is objected to because of the following informalities:

Line 1, the recitation of "***A hydraulic coupling having a primary impeller, a secondary impeller"*** should be replace by **-- A hydraulic coupling has a primary impeller and a secondary impeller –** *(for correcting grammatical error).*

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Mischke et al. (Patent number 3,058,296).

Mischke discloses a hydrodynamic coupling comprising:

a primary impeller (4, 9);

a secondary impeller (14), said primary and secondary impellers (4, 9; 14) forming a toroidal working chamber (See Figures 1-2);

a drive shaft (2) driving said primary impeller (4, 9), said drive shaft (2) having a first end (Not Numbered), a second end (Not Numbered), a central axis (Not Numbered), and a segment between said first and second ends (Not Numbered) (See Figures 1-2);

at least one supply channel (26) for introducing a working medium to said toroidal working chamber, said at least one supply channel (26) being formed in said drive shaft (2) at said central axis along said segment (Not Numbered); and

a plurality of evacuation channels (32) for evacuating said working medium from said toroidal working chamber (Not Numbered), said plurality of evacuation channels being formed in said drive shaft (2) radially about said at least one supply channel, said plurality of evacuation channels (32) being formed from said first end up to at least said second end, said first end being located a distance from said toroidal working chamber (See Figures 1-2, Column 2, lines 46-72, and Column 3, lines 1-10);

wherein said primary impeller (6, 7) is on said drive shaft (2) or is formed as a part of said drive shaft (2) (See Figures 1-2); and

wherein said primary and secondary impellers (6, 7; 5) are mounted on said drive shaft (2) in a floating manner (See Figures 1-2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mischke et al. (Patent number 3,058,296), in view of Design choice.

Mischke discloses the invention as recited above, and further discloses each of said plurality of evacuation channels and said at least one supply channel comprising an inlet opening (27) (See Figure 1); wherein said at least one supply channel (via 28) opens into said toroidal working chamber in a region of an intermediate circumference of said toroidal working chamber, said region of an intermediate circumference being between a region of an inner circumference and said region of an outer circumference of said toroidal working chamber (See Figure 1).

However, Mischke fails to disclose the location/region wherein the openings of the evacuation channels and the supply channel.

It would has been obvious to one having ordinary skill in the art at that time the invention was made to have positioned said evacuation channel open into said toroidal working chamber in a region of an outer circumference of said toroidal working chamber, since the location of said evacuation channel open into said toroidal working chamber would have performed equally well in that location and the mere repositioning

of parts not effecting the functioning of the device involves only routine skill in the art, *In re Japikse, 86 USPQ 70.*

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mischke et al. (Patent number 3,058,296), in view of Nitsche et al. (Patent Number 5,954,607).

Mischke discloses the invention as recited above, however Mischke fails to disclose said primary impeller being changeable from non-locked position to a locked position, wherein in the locked position said primary impeller is locked against rotation so that the hydrodynamic coupling exercises the function of a retarder when said secondary impeller is driven.

Nitsche teaches that it is conventional in the art of transmission unit, to utilize said primary impeller being changeable from non-locked position to a locked position, wherein in the locked position said primary impeller is locked against rotation so that the hydrodynamic coupling exercises the function of a retarder when said secondary impeller is driven (See Column 3, lines 32-67, Column 4, lines 1-12 and 25-67, and Column 5, lines 1-31).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized said primary impeller being changeable from non-locked position to a locked position, wherein in the locked position said primary impeller is locked against rotation so that the hydrodynamic coupling exercises the function of a

retarder when said secondary impeller is driven, as taught by Nitsche, to control the operating condition of the Mischke coupling.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguchi et al. (Patent Number 5,138,840), in view of Mischke et al. (Patent number 3,058,296).

Oguchi discloses a drive train (4,6,11) comprising:

an internal combustion engine (2) driving a crankshaft (12);

an exhaust gas turbine (3) disposed in a flow of exhaust from said internal combustion engine (2), said exhaust gas turbine (3) being connected with said crankshaft (12) (via 11, 6, 4); and

a hydrodynamic coupling (6) disposed between said exhaust gas turbine (3) and said crankshaft (12) (See Figure 1).

However, Oguchi fails to disclose the structural details of said hydrodynamic coupling.

Mischke teaches that it is conventional in the art of hydraulic coupling, to utilize a primary impeller (4, 9) and a secondary impeller (14) forming a toroidal working chamber(Not Numbered);

a drive shaft (2) driving said primary impeller (4,9), said drive shaft (2) having a first end (Not Numbered), a second end (Not Numbered), a central axis (Not Numbered), and a prespecified segment between said first and second ends (Not Numbered);

at least one supply channel (via 28) for introducing a working medium to said toroidal working chamber (Not Numbered), said at least one supply channel (via 28) being formed in said drive shaft (2) at said central axis along said segment (Not Numbered); and

a plurality of evacuation channels (32) for evacuating said working medium from said toroidal working chamber (Not Numbered), said plurality of evacuation channels being formed in said drive shaft (2) radially about said at least one supply channel, said plurality of evacuation channels (32) being formed from said first end up to at least said second end, said first end being located a distance from said toroidal working chamber (See Figure 1, Column 2, lines 46-72, and Column 3, lines 1-10);

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the structural details of said hydrodynamic coupling, as taught by Mischke, to improve the efficiency for the Oguchi device, since the use thereof the working medium would have been completely evacuated from the working chamber.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguchi et al. (Patent Number 5,138,840), in view of Mischke et al. (Patent number 3,058,296), and further in view of Nitsche et al. (Patent Number 5,954,607).

The modified Oguchi device discloses the invention as recited above, however fails to disclose said primary impeller being changeable from non-locked position to a

locked position, wherein in the locked position said primary impeller is locked against rotation so that the hydrodynamic coupling exercises the function of a retarder when said secondary impeller is driven.

Nitsche teaches that it is conventional in the art of transmission unit, to utilize said primary impeller being changeable from non-locked position to a locked position, wherein in the locked position said primary impeller is locked against rotation so that the hydrodynamic coupling exercises the function of a retarder when said secondary impeller is driven (See Column 3, lines 32-67, Column 4, lines 1-12 and 25-67, and Column 5, lines 1-31).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized said primary impeller being changeable from non-locked position to a locked position, wherein in the locked position said primary impeller is locked against rotation so that the hydrodynamic coupling exercises the function of a retarder when said secondary impeller is driven, as taught by Nitsche, to control the operating condition of the modified Oguchi coupling.

Allowable Subject Matter

Claims 17-19 are allowed

Response to Arguments

Applicant's arguments with respect to claims 11-21 have been considered but are moot in view of the new ground(s) of rejection.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THAI BA TRIEU whose telephone number is (571)272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTB
May 18, 2009

/Thai-Ba Trieu/
Primary Examiner
Art Unit 3748